



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,156	07/31/2003	Duane D. Fortune	DP-309973	2234
22851	7590	09/10/2004	EXAMINER	
DELPHI TECHNOLOGIES, INC.			MARTIR, LILYBETT	
M/C 480-410-202				
PO BOX 5052			ART UNIT	PAPER NUMBER
TROY, MI 48007			2855	

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,156

Applicant(s)

FORTUNE ET AL.

Examiner

Lilybett Martir

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/24/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Axakov et al. (Pat. Appl. US 2003/0213623A1) in view of Verma et al. (Pat. 5,942,695).

- With respect to claim 1, Axakov et al. teaches a seat pan 15 having a force sensor 5 secured, a spherical ball 43 in contact with the force sensor 5 as noted in Figure 8; a ball actuator 17 coupled said seat frame and contacting a surface of said ball opposite said force sensor; and a spring 36 for preloading said force sensor by biasing said ball against said force sensor as can also be noted in Figure 8. Axakov et al. fails to teach securing the force sensor with respect to a floor bracket; and the ball actuator coupled to a seat frame. Verma et al. teaches that the utilization of force sensing elements 30 secured to brackets 16 in the seat load measurement art is commonly known as noted in his Figure 3. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the load cell of Axakov et al. utilizing the teachings of the seat load measuring apparatus of Verma et al. by situating force sensing elements secured to

brackets to further allow for the measurement of the weight of a passenger seat/arrangement in a reliable and versatile manner.

- With respect to claim 2, Axakov et al. teaches a domed structure as in element 13 covering his apparatus as noted in Figure 8. Axakov et al. fails to specifically teach a sensor bracket secured to said floor bracket and having a domed portion that aligns said ball actuator with respect to said sensor. Verma et al. teaches that the utilization of force sensing elements 30 having an enclosure as in element 50 in the seat load measurement art is commonly known as noted in his Figure 5. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the load cell of Axakov et al. utilizing the teachings of the seat load measuring apparatus of Verma et al. by situating force sensing elements in an enclosure as in element 50 to further protect the circuitry of said sensing element therefore making said device more durable and reliable.
- With respect to claim 3, Axakov et al. teaches said spring 36 being disposed between said actuator 41 and the dome 13 of said sensor as noted in Figure 2.
- With respect to claim 5, Axakov et al. teaches said ball actuator 17 includes a conical recess (Note the rounded portion in the top of element 17 that is in contact with element 43 in Figure 8) that is aligned with said

sensor 5, and said ball 43 is partially received in said recess to align said ball with said sensor as noted in Figure 8.

- With respect to claim 6, Axakov et al. teaches said sensor 5 included in an aperture, said ball 43 is seated near said sensor about said aperture in element 4 as in Figure 5, and said ball actuator 17 has a substantially planar surface that contacts said ball 43 as noted in Figure 6.
- With respect to claim 7, Axakov et al. teaches the ball actuator 17 of his apparatus being secured as noted in Figure 7a with respect to a seat pan 15. Axakov et al. fails to specifically disclose the apparatus being inverted such that said ball actuator is secured with respect to said floor bracket, and said force sensor is coupled said seat frame. Verma et al. teaches that the utilization of force sensing elements 30 secured to brackets 16 in the seat load measurement art is commonly known as noted in his Figure 3. Since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations (Ex Parte Masham, 2 USPQ F.2d 1647 (1987)), . It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the load cell of Axakov et al. utilizing the teachings of the seat load measuring apparatus of Verma et al. by positioning respective to a seat bracket and a seat frame so that it's ball actuator is secured

with respect to said floor bracket, and said force sensor is coupled said seat frame to further allow for the measurement of the weight of a passenger seat/arrangement in a reliable and versatile manner.

Allowable Subject Matter

3. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, or if the limitations of said claim are inserted on the base claim form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilybett Martir whose telephone number is (571)272-2182. The examiner can normally be reached on 9:00 AM to 5:30 PM.

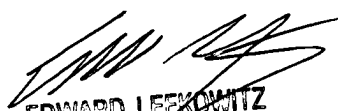
5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571)272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2855

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lilybett Martir
Examiner
Art Unit 2855



EDWARD LESKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800